

Section II. (REMARKS)

The pending claims in the application are 1-7, 10, 14-20, and 53-59.

Power of Attorney

Applicants have included herewith an executed Power of Attorney form that revokes the previously filed Power of Attorney and appoints new representation with new Attorney Docket Number **020732-97.668 (7493)**. Further, applicants have requested a Change of Correspondence, so that all communications from the USPTO will be sent to the following contact and address:

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Request for Continued Examination

In response to the Advisory Action dated December 23, 2005, a Request for Continued Examination is appended hereto.

Amendment to Claims 1 and 8

Claim 1 has been amended to remove subspecies (b) (Species II) from the body of the claim. Accordingly, claim 1 recites a composition including an ACC consisting of only subspecies (a) (Species I).

Claim 8 has been converted to an independent claim and recites a composition including an ACC consisting of only subspecies (b).

Request for Rejoinder Reminder

Applicants respectfully request examination of Species II (claims 8, 9, and 11-13 and 21-23) of composition claims 1-23 upon allowance of Species I (claim 1, 2-7, 10, 14-20 and 53-59). Applicants acknowledge the Examiner's indication that said search extension is "possible" (see

June 2, 2005 Office Action, page 3, lines 1-2).

Further, applicants request rejoinder of method claims 24-52, 58 and 59 upon allowance of the composition claims 1-23 and 53-59.<sup>1</sup>

### **Allowable Subject Matter**

In the December 23, 2005 Office Action, the Examiner indicated that claim 7 is allowable. Applicants acknowledge same.

### **Provisional Double Patenting Rejection Under the Judicially Created Doctrine of Obviousness-Type Double Patenting**

In the October 24, 2005 Office Action, the Examiner provisionally rejected claims 1-2, 5, 8-9 and 11-22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-17 of co-pending U.S. Patent Application No. 10/389,214.

In response to said Office Action, applicants acknowledged the provisional rejection of the specified claims and requested that the Examiner acknowledge that applicants had never “urge[d]” that the double patenting rejection was “overcome”<sup>2</sup> because the record should not contain statements that applicants “urge[d]” a point they never in fact argued. Urge is a very strong word and is not equivalent to an acknowledgement.

In the December 23, 2005 Advisory Action, the Examiner indicated that the request for reconsideration does not place the application in condition for allowance because “[a]pplicants state that [sic] “that applicants had never “urge[d]” that the double patenting rejection was “overcome.” No terminal disclaimer is on the record.”

The Examiner is respectfully reminded that MPEP 804 (I)(B) recites:

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<sup>1</sup> Rejoinder was previously requested in the response to the April 18, 2005 Office Action, filed April 27, 2005.

<sup>2</sup> the Examiner repeatedly stated in the October 24, 2005 Office Action that “[a]pplicants urge [in the arguments filed August 22, 2005] that the double patenting rejection is overcome since claimed

"The "provisional" double patenting rejection should continue to be made by the examiner in each application as long as there are conflicting claims in more than one application unless that "provisional" double patenting rejection is the only rejection remaining in >at least< one of the applications."

and MPEP 804 (I)(B)(1) recites:

"If the [obviousness-type double patenting] rejection is the only rejection remaining in the later-filed application, while the earlier-filed application is rejectable on other grounds, a terminal disclaimer must be required in the later-filed application before the rejection can be withdrawn."

It is noted that the earlier co-pending application, U.S. Patent Application No. 10/389,214, which presently pending claims 1-2, 5, 8-9 and 11-22 are provisionally rejected under, is still pending and remains rejectable on other grounds. Further, according to the Examiner in the December 23, 2005 Advisory Action, '[o]ther arguments have been considered but are not found to be convincing.' Accordingly, the presently pending claims remain rejectable on other grounds and applicants are not required to file a terminal disclaimer at this time.

If in the future, co-pending U.S. Patent Application No. 10/389,214 remains rejectable on other grounds, the obviousness-type double patenting rejection is the only rejection remaining to the presently pending case AND the presently pending claims are an obvious variation of the invention defined in claims 7-17 of co-pending U.S. Patent Application No. 10/389,214 (which can only be objectively assessed when the only rejection remaining in the presently pending case is the obviousness-type double patenting rejection), applicants will submit the required terminal disclaimer.

Until then, applicants will rightfully continue to acknowledge that the Examiner has provisionally rejected claims 1-2, 5, 8-9 and 11-22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-17 of co-pending U.S. Patent Application No. 10/389,214.

### Rejection of Claims and Traversal Thereof

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composition contains an intended use" (see, e.g., October 24, 2005 Office Action, page 3, lines 8-9, and

In the October 24, 2005 Office Action:

claims 1-2, 5, 8-9, and 11-22 were rejected under 35 USC 103(a) as being unpatentable over Minsek et al. (U.S. Patent Application Publication No. 20040180300);

claims 1-6 were rejected under 35 USC 103(a) as being unpatentable over Carati et al. (U.S. Patent No. 5,908,968); and

claims 1-5 and 10 were rejected under 35 USC 103(a) as being unpatentable over Miller et al. (U.S. Patent No. 6,572,743).

The Examiner indicated in the December 23, 2005 Advisory Action that the rejection under 35 U.S.C. §103(a) over Minsek is withdrawn, however, “[o]ther arguments have been considered but are not found to be convincing.”

These rejections are traversed and reconsideration of the patentability of the pending claims is requested in light of the following remarks.

#### Rejections under 35 U.S.C. §103

1. In the October 24, 2005 Office Action, claims 1-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Carati et al. (U.S. Patent No. 5,908,968) (hereinafter Carati). Applicants traverse such rejection.

It is initially noted that in order to make a legally sufficient rejection under 35 U.S.C. §103(a) based on a modification of a reference disclosure, the Examiner must explain with specificity what areas of the reference suggest the modification. *Ex parte Humphreys*, 24 U.S.P.Q.2d 1255, 1262 (B.P.A.I. 1992).

Carati relates to a process for the hydroisomerization of n-paraffins (i.e., waxes) in the presence of a difunctional catalyst. Specifically, Carati teaches the production of a reaction mixture seed suspension for the preparation of a boro-alumino-silicate (Al-BOR-B) crystalline catalyst material. Importantly, Carati is completely silent with regards to semiconductors and the removal

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page 5, lines 17-18).

of photoresist or SARC materials from a semiconductor substrate.

Comparing the Carati reference with applicants' claimed invention, it can be seen that Carati is non-analogous art and thus the Examiner may not rely on Carati in an attempt to establish *prima facie* obviousness.

As stated by the court in *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992),

"[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned."

The Carati reference, which teaches the preparation of a boro-alumino-silicate (Al-BOR-B) crystalline catalyst material, is clearly NOT in the field of applicants' endeavor. Moreover, the field of crystalline catalyst synthesis is NOT even marginally pertinent to compositions useful for removing photoresist and/or SARC materials from a semiconductor substrate.

It is noted that the Examiner repeatedly stated in the October 24, 2005 Office Action that the intended use of applicants' composition "has and is given a [sic] little value for the patentability of the composition claims since the claimed composition has another use" (see October 24, 2005 Office Action, page 8, lines 1-3). That said, the intended use is important when considering whether the prior art is "reasonably pertinent to the particular problem with which the inventor was concerned," and should under the circumstances be considered for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. See, MPEP 2173.05(g) (emphasis added).

Accordingly, there are no grounds for relying on the Carati reference as a basis for the rejection of applicants' claims.

In addition, one skilled in the art would not reasonably expect that the Carati composition would successfully remove photoresist and/or SARC materials from a semiconductor substrate.<sup>3</sup> The teaching in Carati that the Examiner points to relates to the production of a reaction mixture seed suspension and recites:

"[a] reactant mixture "A" is prepared by dissolving 0.8 g of NaOH, 0.4 g of NaAlO<sub>2</sub> and 3.7 g of H<sub>3</sub>BO<sub>3</sub> in 65.5 g of tetra ethyl ammonium hydroxide at 14% by weight. To the resulting clear solution, 31.2 g of Ludox HS silica at 40% by weight is added. The resulting "A" mixture is charged to an autoclave and is allowed to crystallize for 2 days at 150° C. under static conditions and under its autogenous pressure. In that way, a milky seed suspension is obtained." (see Carati, col. 6, lines 30-37)

One skilled in the art would not reasonably expect that the introduction of the Carati milky seed suspension to the semiconductor surface would successfully remove photoresist and SARC material therefrom. In fact, the purpose of this photoresist/SARC removal stage is to remove material from the substrate, not introduce additional particulate material.

Considered *in toto*, Carati does not make obvious applicants' claimed invention. Withdrawal of the rejection of pending claims 1-6 under §103 in view of Carati is respectfully requested.

2. In the October 24, 2005 Office Action, claims 1-5 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Miller et al. (U.S. Patent No. 6,572,743) (hereinafter Miller '743). Applicants traverse such rejection.

Miller '743 relates to the application of adherent metallic coatings to the ends of optical fibers to facilitate bonding of fiber ends at interfaces between the fiber ends and optoelectronic and related devices and modules. Importantly, Miller '743 is completely silent with regards to semiconductors and the removal of photoresist or SARC materials from a semiconductor substrate.

Similar to Carati, Miller '743 is non-analogous art. The Miller reference, which teaches the application of adherent metallic coatings to the ends of optical fibers is clearly NOT in the field of applicants' endeavor. Moreover, the metallic coating is NOT even marginally pertinent to compositions useful for removing photoresist and/or SARC materials from a semiconductor substrate. Accordingly, there are no grounds for relying on the Miller '743 reference as a basis for the rejection of applicants' composition claims.

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<sup>3</sup> See, *In re Rinehart*, 189 U.S.P.Q. 143 (CCPA 1976) (addressing the lack of any reasonable expectation of success as evidencing non-obviousness).

In sum, Miller '743 is not analogous art. Even if this were not the case, the fact remains that there is no motivation, teaching or suggestion in Miller '743 to modify the Miller '743 silver nitrate solution. The Miller '743 silver solution recited at col. 13, lines 8-16 contains deionized water, KOH, ammonium hydroxide and silver nitrate and is actually produced for combination with a glucose reducer solution, followed by immersion of the optical fiber tip in the silver/glucose solution for electroless silver plating thereto. There is no motivation, teaching or suggestion that the silver nitrate should be removed from the Miller '743 solution. Further, there is no motivation, teaching or suggestion that the Miller '743 solution may be used to remove photoresist and/or SARC materials from a semiconductor substrate.

In addition, one skilled in the art would not reasonably expect that the Miller '743 solution would successfully remove photoresist and/or SARC materials from a semiconductor substrate. Silver ions ( $Ag^+$ ) are small, compact ions that could potentially intercalate into the porous low-k dielectric materials exposed on the surface of the semiconductor substrate and could alter the dielectric properties of said low-k material and/or form silver-containing solids in the pores of said low-k material, both of which would be detrimental at this stage of the semiconductor manufacturing process.

In sum, Miller '743 is not analogous art. Even if this were not the case, the fact remains that there is no objective motivation, teaching or suggestion in Miller '743 to modify the Miller '743 teaching to yield applicants' claimed composition. Accordingly, withdrawal of the rejection of pending claims 1-5 and 10 under §103 in view of Miller '743 is respectfully requested.

#### Fees Payable

One (1) dependent claim has been converted to one (1) independent claim herein. As such, an added claims fee of \$200.00 is due.

A check payable to the Commissioner for Patents in the amount of \$990.00 for (a) the Request for Continued Examination, submitted herewith under the provisions of 37 CFR §1.114, and (b) the aforementioned claim conversion, is attached herewith.

Authorization is also hereby given to charge any deficiency or credit any overpayments in

applicable fees for this response to Deposit Account Number 13-4365 of Moore & Van Allen PLLC.

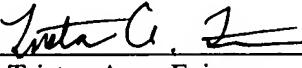
**Conclusion**

If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 286-8090 to discuss same.

Respectfully submitted,

MOORE & VAN ALLEN PLLC

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